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Webs, Walls, and Wars

To say that social scientists and social activists have been greatly impressed by networks is something of an understatement. A generation of them already has grown up using social network analysis as a primary means of studying social relationships and communities and also of organising them for change of the *status quo*.¹ At the forefront of such scholarship, Manuel Castells argues that the revolution in information technology has given rise to a 'network society'—a new form of organization of human activity, political, economic, and cultural, that is structured around new flows of information, wealth, and power.² Equally easy to understate is the degree to which the massive growth of networks has flummoxed governance characterized now, say some, by a 'hollowed-out state... a core executive fumbling to pull rubber levers of control' which no longer work as they once did.³

Through the 1990s much attention in strategic studies was focused upon the ways that networking, literally a 'system of systems', was set to bring about a Revolution in Military Affairs (RMA) which would make wars faster, cheaper, and inherently much less chancy for the most technologically advanced militaries of the world.⁴ In the first decade of the new millennium, however, as these same armies found themselves mired as with feet of clay fighting insurgencies in Iraq and Afghanistan, scholarship turned to exploring how the benefits of burgeoning connectivity actually accrued in equal or greater measure to non-state 'asymmetric' challengers.⁵ Even more recently have come analyses of conflict that argue that to varying degrees it has become a 'de-territorialised and globally connected' affair of transnational social movements engaged in discursive 'wars of ideas' lacking any permanent physical theatre but rather thriving on the ever-shifting network flows of globalisation.⁶ At the same time, the security of digital systems, or 'cyber security', has leapt to the top of the defence agenda of governments, industry, and citizens.⁷

Less well observed in the literature on our radically interconnected 'network society' is that it is characterized just as much by a bewildering and overlapping complex of fortifications designed to channel and mitigate or otherwise buttress against the cataract flows of globalization. The War on Terror accelerated and magnified these developments but it did not create them.⁸ Nowadays, art, commerce, transport, and much of civil life in general are conducted within modern *enceintes*, new types of citadels employing both physical and less tangible digital barriers and control mechanisms. For the most part this is occurring organically in a bottom-up manner all-too-often akin to unconscious reflex action in the face of perceived threats, which themselves stem from the increasing connectedness of the world.

This reflexivity is a problem. In 2006, the philosopher John Ralston Saul argued that globalisation, which he perceived above all through the prism of economics, was already in retreat and ultimately doomed. Whether this proves true or not of neo-liberal economics (Ralston Saul's *bête noire*), already in security terms we are experiencing globalisation's rebel sting and the inevitable counteraction to it

embodied in our architecture. His rumination on the question ‘what comes next?’ is germane to this essay. The future, he wrote, will

[...] be decided—a conscious act—or it will be left to various interest groups to decide for us, or simply to fate and circumstance. The soundness of the outcome will depend on the balance between these necessary mechanisms. The most dangerous disequilibrium will have favoured fate and circumstance over the other two. The most mediocre, interest groups. The soundest equilibrium would be led by conscious public decisions.⁹

We are now in the midst of the mediocre but headed toward the most dangerous equilibrium. Societies are ‘forting up’ but much of this is driven by special interests—specifically private capital investors and corporations—and by individual fate and circumstance not conscious public policy and strategy.¹⁰ Strategic studies are largely silent on the issue.¹¹

This paper seeks in a modest way to bolster conscious awareness and understanding of the contemporary global trend of fortification, the interaction of webs and walls and the challenges that represents to governance, which at present stymies the formulation of sound strategies. It will show how fortification today is a general phenomenon manifest across the spectrum of conflict. It will critique the theory of ‘new military urbanism’ which currently dominates thinking on the operations of armed forces in the world’s burgeoning and interconnected megacities, as well as inadequate for the purposes of rectifying said deficiency.¹² It will suggest a different way forward that is rooted in the history of why people fortified in the past and the sophisticated (albeit neglected for over a century) strategies they employed towards the achievement of those.

The larger argument here is that there is nothing intrinsically good about webs and network flows or intrinsically bad about walls that aim to regulate flows and mitigate their effects.¹³ World order depends on a considered balance of both. A completely ‘flat’ world that is frictionless to flows will be characterised by precarious instability and extremes of poverty and wealth;¹⁴ whereas a completely ordered, demarcated, and impermeably walled one will be a stagnant ‘securocracy’ unable to change and equally doomed to impoverishment. The issue, as Fritjof Capra put it, is not one of ‘discarding designed structures in favour of emergent ones... [the] challenge is to find the right balance between the creativity of emergence and the stability of design.’¹⁵

WARFARE TO WALLFARE

It is a commonplace observation that our world today is defined by the seemingly ever-increasing network flows of people, things, and ideas. In the early 1960s Marshall McLuhan captured the emerging *zeitgeist* when he heralded the ‘global village’ as a result of the rise of global communications.¹⁶ By and large this was considered a good thing, at the time—indeed it was the key theme in Robert Kennedy’s famously uplifting 1968 ‘ripples of hope’ speech.¹⁷ But before them both,

however, Hannah Arendt perceived a dark side to a world in which ‘every man feels the shock of events which take place at the other end of the globe... Technology, having provided the unity of the world, can just as easily destroy it...’¹⁸ At the time of writing these words, just weeks after the massacre in Paris by two French Muslims of the satirists of *Charlie Hebdo* magazine on a self-appointed mission of vengeance of the apparently besmirched honour of the Islamic prophet Mohammed, Arendt’s apprehension seems rather prescient.

The problem, though, is not simply or specifically one of the effect of connectedness as a sort of supercharger of terrorism;¹⁹ it is rather a more general and widespread problem of tensions and disjuncture across multiple dimensions of the global cultural economy.²⁰ It is all too apparent to citizens nowadays, for instance, how failures in the subprime mortgage market of the United States led to a global financial crisis in 2008 that continues to plague the world economy.²¹ Or, even more literally, how a primarily West African outbreak of haemorrhagic fever could spread over the course of 2014 into an international public health crisis that at present defies containment.²² No one thinks it odd that the anti-capitalist 2011 Occupy Wall Street movement should proclaim itself a ‘leaderless resistance movement’ using the tactics of the anti-regime Arab Spring movements to achieve its ends.²³

The sociologist Zygmunt Bauman has described the prevailing state of affairs as one of ‘liquid modernity’.²⁴ A societal response to it has been a proliferation of wall building. Israel’s security barrier is only the best known of many *de facto* border demarcating walls now collectively comprising thousands of kilometres of concrete, barbed wire and chain-link palisades with ditches, fixed and mobile electronic sensors, sentry towers and gate houses that have been built along borders from Texas to Turkey in the last decade.²⁵ Internal fortifications have also proliferated massively throughout the world at the same time. Blast walls, traffic barriers, checkpoints, and physical and electronic surveillance systems surround public buildings and transport hubs in cities great and small.²⁶ Meanwhile, urbanites have been seeking shelter from the perceived conflict, crime, and uncertainty of city-life through gating and wall-building for decades—not only in the United States where the phenomenon has been most extensively studied but on every continent and in developed and developing nations alike.²⁷

Notwithstanding all this construction, thinking on positional warfare and its derivative specialisms—fortification and siegecraft—has progressively fallen from fashion since the early modern era.²⁸ Partly, this is on account of Napoleon whose perfection of the modern field army established a centuries-long tradition of preoccupation in military studies with mobile warfare. Carl Von Clausewitz, the great philosopher of war writing in the shadow of Napoleon, had a nuanced appreciation of the role of fortresses, describing them as ‘knots that hold the web of strategy together’.²⁹ On the whole, however, the lesson taken from this era was that ‘mere enclosure and fortification, without any other military preparations’ had had its day.³⁰

Two things, above all, are driving the current revitalisation of fortification. The first is the increasing detachment of the mainstream of conflict from the paradigm of all arms, high-intensity, interstate conflict in which unfettered escalation must be assumed. During the Cold War, Soviet plans for the invasion of NATO-defended Europe intended to deal with vital command and control targets within German cities, which could be readily transformed into army-wasting death traps, through the eminently sensible (albeit horrific) tactic of 'nuke and bypass'.³¹ By contrast, wars today are predominantly fought within states under conditions in which the use of force is limited, either because powerful belligerents pursuing limited aims restrict their own use of the full means at their disposal, or because weak belligerents pursuing grandiose aims are restricted by their limited means.³² The second is the desire of many states to control population flows, both over and within their own borders as well as in external theatres of conflict where they have intervened as third-party counterinsurgents in support of local regimes.

In situations where the use of the most powerful weapons is restrained, old techniques of positional warfare become viable again. As an illustration, one of the least remarked upon but tactically significant military innovations of the last decade has been the widespread deployment of the HESCO barrier. Named after the British firm that designed it, originally for use on seafronts as an erosion barrier, this is a collapsible wire mesh container, available in various sizes, with a heavy plastic liner. Cheap to manufacture, easy to transport in flat-pack, and stackable, HESCO requires just a few troops with a front end-loader (and plentiful local dirt and rubble) to create instant castles proof against the bullets, rocket propelled grenades, and improvised explosive devices deployed by insurgents. Recent uses of HESCO systems, including its 'Rapid Deployable Security Fence' (a robust wire fence which provides no ballistic protection but is proof against mobs and vehicle attacks), include:

Fortified compounds in Mali for support of French and local government forces, providing stable areas from which to conduct operations';

Blast and ballistic barriers around high profile venues of the 2012 London Olympics, including the 90,000 seat Wembley Stadium;

Perimeter walls and defensive barriers around the headquarters facility and other installations of the UNHCR in Dadaab, Somalia;

Two-layered castellation of a power plant in southern Iraq, including a lightweight bunker roof, all built over five days; and,

At Gereshk and Lashkar Gah, Afghanistan over 4,000 metres of curtain wall with bastions and towers.³³

This is hardly an exhaustive list, nor is HESCO the only company providing such services, it is rather indicative of a broader industry that is essentially dual-use in nature.³⁴

More widely remarked upon has been the use of barriers within the context of counterinsurgency operations for the purposes of controlling population movements, separating, and pacifying warring sectarian communities. Bing West's account of 'The Surge' in Iraq in 2007-2008 vividly captured this tactic in recent use by the United States:

Inside Baghdad, there was a steady rhythm to American operations, somewhat akin to the old Green Bay Packers sweep. Everyone could see it coming. Every week, the concrete caterpillars advanced across the city, walling people in—or out... With fewer mixed neighbourhoods, it was easier to control homogenous districts where any stranger stood out.³⁵

Similar walls, however, have existed in Belfast, Northern Ireland where they were erected by the British Army for exactly the same reason—to physically separate Roman Catholic and Protestant neighbourhoods in order to diminish the tit-for-tat violence, score-settling, and provocation which was escalating beyond control. First erected in 1969, the 'peace walls' have become a permanent feature of the landscape. As one local interviewed in 2013 about the twelve foot high concrete and steel wall dividing his neighbourhood, 'If they took an opinion poll of people just in this area alone the vast majority would vote to keep it up.'³⁶

Vast controversy has surrounded the use by Israel of similar techniques of regimenting human function through the manipulation of urban space. Architect Eyal Weizman concludes of Israel's extensive barriers that they enabled 'the creation of a new geographic, social, and economic reality' in which the lives of Palestinians could be dominated and managed without need for overt violence.³⁷ However one feels about the aims to which these constructions are employed, they have proved consistently tactically efficacious.

By no means, however, is fortification solely a state-driven activity. Insurgents, too, most notably Hamas and Hezbollah in their confrontation with Israel, both Sunni and Shi'ite militants in Iraq against the United States, and to some extent Al Qaeda fighters in 2002 fighting in Afghanistan, also against primarily American forces, have practiced fortification strategies.³⁸ Positional warfare, however, remains on the whole rather alien to guerrilla *metier*—even in the modern urban context where to present one's self as a target to well-trained and well-equipped regulars is to invite a grisly death.³⁹ In fact, the most energetic and, in aggregate, extensive developments in securitised architecture are those of other non-state actors—individual citizens and private corporations—attempting to create defensible space in a world seemingly perilously lacking adequate policing and governance.

Not all gated communities exist for primarily security reasons. Critics often virulently decry them as the 'apotheosis of the lifestyle of *laissez faire* consumer capitalism... exemplify[ing] the vision of islands of abundance flowing in oceans of poverty.'⁴⁰ There is clearly some measure of truth to this in Europe and the United States where class exclusivity is a driver of gating, while at the same time for much of the rest of

the world it is an oversimplification. Indeed, in Third World megacities such as Lagos, the largest in Africa, gating is becoming the default condition of all classes:

The predominance of gating and its positive reception by local residents shows a pragmatic acceptance by most that gating, however unethical and imperfect a solution, does provide a way to 'control' the perceived, if not real, excesses of urban life...⁴¹

In the Middle East, similarly, urban residential fortification is burgeoning more and more as a result of violent social unrest and as a way of walling off areas where civil authorities are no longer able or willing to protect the population.⁴² 'Bunkerisation' is also increasingly an aspect of humanitarian relief efforts, in which as one analyst has remarked:

The fortified aid compound is more than an unfortunate but necessary defensive measure. It is a therapeutic infrastructure allowing for care of the self and a necessary refuge from a threatening world that aid workers no longer understand or feel safe in.⁴³

In short, 'forting up' is a practical, if paradoxical, *leitmotif* of our densely connected age that manifests in a range of modes from the militarily tactical to the broadly political as conducted by an equally broad range of actors.

AN URBAN TURN IN STRATEGY?

The urban sociologist Mike Davis in a landmark work on the Los Angeles cityscape described this 'fortress effect' not as an 'inadvertent failure of design, but as deliberate socio-spatial strategy.'⁴⁴ Few working strategists have taken up this idea, sticking instead to a narrower concept of geopolitics that frames geography as 'massively given, substantially beyond near term (at least) alteration by human effort' in contrast with the acute fluidity of politics.⁴⁵ The problem is that the geography of the *built environment* is not at all static, nor in any sense is it inertly apolitical, as philosophers have been remarking ever since the Greeks realised that 'the form of the city was the form of its social order, and that to remould one it is necessary to introduce appropriate changes in the other'.⁴⁶

If strategists lost sight of this instrumental property of the built environment, geographers and students of revolution certainly have not. As a rule of thumb, the two ways of conceiving of the interaction of space and strategy in the literature (understood as how power is applied to the achievement of specific ends)⁴⁷ can be identified simply by looking at the index of any particular book: one genre will surely mention extensively the nineteenth century Frenchman Baron Georges-Eugene Haussmann; the other will almost surely not.⁴⁸

David Kilcullen, one of the rare authors whose work straddles both genres, archly described Haussmann as Emperor Napoleon III's 'de facto chief of homeland security' whose brief was the facilitation of the efficient quelling of uprisings through

urban design—widening and straightening Parisian boulevards the better to allow the rapid movement of cavalry along them, arranging the design and placement of its buildings to prevent the easy erection of barricades by mobs, and relocating the poor population (i.e., the incipient mob) from the centre of the city to its outskirts where it could more easily be controlled.⁴⁹ Whether this was done ‘consciously and intensively’, as is often argued, or as fundamentally an exercise in property development with the coincidental effect of opening up the streets to grapeshot artillery fire is debatable.⁵⁰

Kilcullen was a key figure in the design of ‘The Surge’ strategy described by Bing West above, a State Department advisor on counterinsurgency of considerable skill and renown, and one of General Petraeus’s Iraq War brain trust. He recounts in his recent book a conversation with a colleague that caused him to revisit his positive feeling that his efforts there—part of which entailed building community-separating checkpoints and walls—had forestalled a nasty sectarian genocide only at the cost of ‘killing the city’.⁵¹

There is a grain of truth here, clearly the physical alteration of the flows of any city will have an impact on normal social commerce—that indeed is the point of such alteration—but it comes thickly wrapped in a layer of overstatement. Several objections occur, most obviously that what was killing Baghdad at that time was the volcanic eruption of bombings, shootings, kidnappings, and torturing affecting hundreds of people per week, which had to be slowed and was slowed as a necessary condition of any conceivable more permanent solution. That said permanent political solution, whatever that might be, is elusive does not mean Baghdad is dead anymore than the continued existence of ‘peace walls’ in Belfast forty years after they first went up means that it is dead.

In fact, cities are enormously resistant to ‘killing’ and the flows within them are extremely mutable in the face of the most vigorous efforts to affect them. The case of the 1992-1995 Sarajevo siege is instructive. One of the longest city battles of modern history within a larger conflict characterised by intense sectarian animosity, it would not be expected that it would also have involved a high degree of cross-ethnic collaboration across frontlines that were every bit as intensely barricaded and savagely fought over as those of Baghdad. However, this was in fact the case—the siege was semi-porous and globally connected to a degree that is not widely recognised. ‘War does not simply inhibit trade, as is commonly understood, but rather transforms it, pushing it into the shadows and creating new winners and losers.’⁵² The key realisation here is the need not to impose binary distinctions on conflicts that defy such simplification—solution vs. no solution, a living city of flows vs. a dead one of no flows—and to embrace the messiness of their real political economy.⁵³

The underpinning logic of the city-killing overstatement that anchors some analysis too far from the shores of commonsense is twofold. First, is the concept of ‘urbicide’, purportedly a nascent war strategy that targets the ‘destruction of buildings *qua* representatives of urbanity’, which in turn is understood as a condition

of agonistic heterogeneity.⁵⁴ The problem is that this is a very specific and unbalanced, or aspirational one might say charitably, conceptualisation of urbanity that elevates plurality—absolutely a condition of the city—above other ‘maternal’ imperatives such as security, enclosure, and nurture that are equally vital to urban living.

It is more accurate to say, as Lewis Mumford, the great historian of the city, put it that:

What happened with the rise of cities was that many functions that had heretofore been scattered and unorganised were brought together within a limited area, and the components of the community were kept in a state of dynamic tension and interaction.⁵⁵

This state of dynamic tension, between the order and stability of the homogenous village and the industrious creativeness of the heterogeneous city, has not gone away simply because humans have learned technologically how to construct megacities of tens of millions of inhabitants. Push too hard on homogeneity and risk stultification *a la* Pyongyang; push too hard on heterogeneity and risk social explosion *a la* Baghdad.

Which brings us to the second underpinning concept—the idea of a ‘new military urbanism. Described by the geographer Stephen Graham, who coined the term, as ‘new military ideologies of permanent and boundless war that are radically intensifying the militarisation of urban life’, one might more generally define it as a hypothesised ‘urban turn’ in military and strategic thinking.⁵⁶ Proponents of the theory find evidence in support of the turn, accompanied by ‘racialised right-wing anti-urbanism’, in the rapid establishment of what they describe as a ‘shadow system of military urban research’ encompassing multiple Western militaries, but most notably those of Israel, the United States, and the United Kingdom, engaged in conferences, workshops, and joint training.⁵⁷

We do indeed seem to inhabit a new global strategic reality poised seemingly permanently ambiguously somewhere on the spectrum between war and not war.⁵⁸ It is also the case that there is a community of practice amongst Western militaries on the conduct of contemporary warfare that involves a high degree of joint enterprise, a shared repertoire of tactics, and knowledge sharing.⁵⁹ But there are also some significant problems with this theory.

For one thing, it is by no means new, as will be explored further in the subsequent section. There has been no point in history since the invention of the city in which armed forces have not been concerned about war in urban terrain. Moreover, the current preoccupation of the United States, as an example, with the increasing urbanisation of the future operating environment goes back at least as far as the end of the Second World War. In the aftermath of that savage bloodbath, a war that marked Europe’s cities with craters, pockmarks, and rubble heaps for a generation and more, an American military study found that forty per cent of all Allied resources

in the war had been consumed in urban fighting. Looking ahead to war with the Soviet Union, it estimated that seventy per cent of resources would be required, while noting that the tally would inevitably rise as the growth of urbanisation was even then quite apparent.⁶⁰

From a military point of view urban warfare is a prospect that generally leaves generals filled with dread and loathing. The ancient Chinese soldier-philosopher Sun Tzu, a great grandfather of strategic wisdom, put the case against it in terms that have never failed to resonate in over two millennia since prescribing it only if 'absolutely necessary, as a last resort.'⁶¹

The trouble is that despite the best efforts of tacticians and technologists since these words were written there remains a horrible insuperability to the problem of fighting in built up areas. The list of dilemmas that preoccupy current doctrine writers about it is long. How to provide command and control in an environment that simultaneously breaks up large formations and complicates their communications? How to manoeuvre one's force securely and swiftly in an environment where engagement ranges are shrunk practically to point blank? How to develop and maintain an intelligence picture of a battlespace that is so irremediably complex? How to apply combat power in a way that serves both tactical exigency and the overall strategic aim when one's enemy is intermixed with civilians and fights from within the civilian infrastructure?⁶² It is also the same list that preoccupied their forebears, though an argument could be made that the cost in civilian lives was less concerning to armies of the past.

New military urbanism seems both impressed and appalled by the apparent practical embrace by armed forces of aspects of post-modern critical theory in their operations, specifically the conceptual deconstruction of the urban environment and inversion of exterior and interior space in a putatively new technique pioneered by the Israel Defence Forces.⁶³ A particularly evocative description by an Israeli officer interviewed by Eyal Weizman of an attack on the Palestinian town of Nablus captures this odd mix of continental philosophy and urban tactics:

This space when you look at it [the interview room] is nothing but your interpretation of it. Now, you can stretch the boundaries of your interpretation, but not in an unlimited fashion—after all, it must be bound by physics, as it contains buildings and alleys. The question is, how do you interpret the alley? ... We interpreted the alley as a place forbidden to walk through, and the door as a place forbidden to pass through, and the window as a place forbidden to look through, because a weapon awaits us in the alley, and a booby trap awaits us behind the doors. This is because the enemy interprets space in a traditional, classical manner, and I do not want to obey this interpretation and fall into his traps.⁶⁴

As Weizman observes, however, it hardly requires *avant garde* cultural theory to rationalise the tactic of 'walking through walls...like a worm that eats its way forward'.⁶⁵ Indeed, the insistence of Israeli military strategists in the Operational

Theory Research Institute on using such terms did much harm to their cause insofar as it freighted a good deal of common sense about war in the built environment with a heavy baggage of fashionable academic language that made it incomprehensible to those who needed it.⁶⁶

He argues that rather than a new development in military thinking it represents instead a continuation of the pacification tactics of the nineteenth century, notably those perfected in the Kasbahs of France's North African colonies by Marshal Thomas Robert Bugeaud and subsequently reapplied (circling back to Haussmann) on the streets of Paris where they were used to break the barricades of the 1870 communes.⁶⁷

One could just as well, though, point to the tactical instructions given to British officers on the Indian frontier through the late nineteenth and early twentieth centuries, as often as not engaged in what were sometimes referred to as 'butcher and bolt' campaigns, for exactly the same lessons arrived at independently.⁶⁸ The point here, though, is not a pedantic nothing-is-new, because obviously some things are different. The scale, density, and diversity of infrastructure of conurbations have grown enormously over centuries of time. Military technology, moreover, across a range of categories, the power and precision of weapons, means of command, control, and communications, mobility and armour, has also changed enormously. But it is in the nature of war that no technological development or tactical technique remains permanently advantageous—the tactical or technical adaptation of one side is always followed by counter-adaptation on the other. There still are no 'silver bullets' allowing one to easily wrest control of a city away from an enemy determined to keep it.

Not even the advent of air power—also hardly a new development, though a wide range of aerial technologies has been developed in the attempt to assert 'vertical security' since the first military aircraft took to the skies—has fundamentally altered the essential challenge.⁶⁹ Somewhat floridly, but accurately, Davis describes this as a 'delusionary dialectic... a sinister and unceasing duet' in which,

Night after night, hornetlike helicopter gunships stalk enigmatic enemies in the narrow streets of the slum districts, pouring hellfire into shanties or fleeing cars. Every morning the slums reply with suicide bombers and eloquent explosions.⁷⁰

There is no *new* military urbanism, nor have the recent efforts of soldiers to conquer the problems of *old* military urbanism proved especially groundbreaking. The cutting edge of military science with respect to urban operations has progressed little further than the late 1990s United States Marine Corps' concept of the 'Three Block War'—a metaphor which envisages military operations involving high-intensity combat, stabilisation operations, and humanitarian activities taking place simultaneously and contiguously, all under the watchful eye of a ubiquitous media.⁷¹ The question of how to keep these blocks practically separate from each other is an excellent critique often directed at the prescriptive value of the theory.⁷²

A more general one, though equally fatal, is that the numbers just do not add up—we have a three block war model for a thirty-three thousand block war problem. In 1957 France succeeded in the Battle of Algiers (though it failed to prevent Algerian independence in the end) with a force to population ratio of 1:33; the British Army sustained a force ratio of 1:65 in Northern Ireland throughout the 1980s; the United States in 2007 managed 1:50 in Baghdad for a period of several months.⁷³ With the trend to smaller, more professional armed forces—coupled with an acute reluctance to accept heavy casualties—already decades long established, no current major armies are in a position to sustain such levels of ‘boots on the ground’. The current British Army, for example, by the logic of its own doctrine would struggle to pacify even one of its own provincial towns.⁷⁴

LESSONS OF HISTORY FOR TODAY

Ironically, the best result of the search for a solution to the simple number problem of urban operations has been the rejuvenation of the oldest piece of military technology of all. As a recent United States Army-funded study of the 2008 Battle of Sadr City concluded, the ‘art of reimagining urban warfare’ came down to the construction of a wall, which forced the insurgents into an insuperable dilemma of either contesting American power directly or being isolated.⁷⁵ Given the evident utility of walls it is worth thinking through their diverse military as well as social, political, and economic applications, advantages, disadvantages, and costs. History has a great deal to tell us on these points.

For a start, it tells us that what is popularly thought about walls is mostly flatly wrong or drastically oversimplified. There is a deceptive uniformity to fortifications—their basic, fixed, flat verticality makes walls seem to the casual observer rather like another. But walls are not really like each other at all—their apparent isomorphism belies a profound diversity of function. In its earliest manifestation, the Neolithic and Bronze Age palisades enclosing settlements or religious sites, for example, the primary imperative was the provision of refuge. Early pastoralists had to be able to preserve their surplus, and more importantly their means of production—tools, seed corn, breeding livestock and so on—against the depredations of powerful nomadic groups with whom they still shared the landscape.⁷⁶

One must avoid the descriptor ‘simple’ when speaking of such ‘contained communities’ for as much as their defences were rudimentary ditches and ramparts (quite often built along defensible naturally existing contours of the land) they also reflected complex social and political realities: walls demarcated land, sometimes on a large scale; they served as a means of harbouring industry, in which role they were integral to the extraction of tax; they had symbolic function impressing passersby with the inherent power of the society, which would also have served a deterrent function.

Finally, settlement enclosures could be useful for regulating and controlling the people within the enclosed settlements and for keeping out undesirables.

In this respect, they are an example of how a community's perceived need for security can become a means of curtailing the freedom of the individual.⁷⁷

There is nothing simple about the above, nor indeed is it a historical footnote lacking contemporary relevance—far from it, in fact. There is something deeply atavistic, for instance, about today's controversies over the efforts of governments to achieve 'cybersecurity', rich as these are with compromises and infringements (both real and imagined) of the liberty and privacy of citizens.⁷⁸

China's 'golden shield' censorship and surveillance project, often referred to as 'The Great Firewall of China', provides a case in point: less a defence against foreign cyber attack than a means of shoring up the existing internal political order against the infiltration of society by political and cultural ideas deemed subversive to its rulers' interests.⁷⁹ In a narrower practical sense, however, it might also be said that the principle of refuge—the ability to reconstitute one's productive systems after an attack has been endured—is essentially still the master concept underpinning the resilience of critical national infrastructure through firewalls, air-gapped systems (in other words, a dry moat), and secure backup, amongst other techniques.⁸⁰

In more developed architectural form (by which is meant featuring a range of tactical and increasingly cunning enhancements such as towers with interlocking fields of fire, battlements and machicolation, wall shapes resistant to undermining, dry and wet ditches, complex gatehouses and portcullises, and so on) fortifications are also often described as strongholds. The key difference between this form and the refuge is that the stronghold is not just a place of static defence; it is, rather, a base of active operations, both defensive and offensive—in other words it belongs to a larger concept of war.

The mediaeval castle represents something of an apotheosis of the form, and mediaeval strategists were very astute judges of its tactical and operational utility as well as its strategic opportunity costs. Its primary function was to dominate and to pacify:

The appearance of a castle is misleading. The moat, drawbridge, portcullis, and arrow-loops give the impression that the castle functioned within bowshot range only. On the contrary, it influenced an area of at least twenty-five miles radius. Even a footsoldier could cover thirty miles in a day without difficulty, and the horseman could obviously manage more. Mediaeval soldiers did not sit at home in the barracks twiddling their thumbs. They were out patrolling, looking for trouble and frequently making it.⁸¹

Again, there is nothing simple about the above and several things that are still very relevant. Perhaps the most obvious is that fortification is part of a combined arms system that includes, and does not stand apart from, infantry and armour, aircraft and artillery.

This is an important point in the context of current debates over counterinsurgency. Much criticism, for instance, of American efforts to pacify Iraq after the March-April 2004 invasion and ouster of Saddam Hussein's regime, focussed on the tendency of the occupying army to concentrate force in big bases 'ringed by high dirt walls, barbed wire, and watch towers' to the intense irritation of some 'who knew that classic counterinsurgency doctrine calls for living and moving among the people' and who therefore decried this 'bunker mentality'.⁸²

The problem, though, is not bunkers *per se*; it is, rather, a twiddling-thumbs-under-cover strategy that rests upon bunkers alone to achieve the desired effect. A century before the American superpower's unhappy adventure in Iraq, Imperial Britain learned the same lesson in its costly efforts to subdue the Boers in South Africa. Ultimately, in order to do so Britain built 8,000 fortified blockhouses, interconnected by wire and telegraph cables spread over 3,700 miles, enclosing 31,000 square miles of territory, and manned by 50,000 British troops plus African auxiliaries.

On their own the blockhouse lines could not have worked, but Kitchener used these now as an adjunct to his military strategy. Between 5 and 8 February 1902 he set in motion four parallel columns of troops designed to shepherd De Wet against the barrier of the blockhouse lines... The combination of blockhouses, scorched earth, and great offensive sweeps and drives [...] paid off. By May 1902, the Boers were exhausted and at the end of their tether. For many the peace could not come soon enough.⁸³

The issue of refuge, though, merits closer scrutiny. Mediaeval peasants would not have looked to a castle dominating their village as a place of refuge in a time of attack any more than villagers today would look at a tank parked in the market square as a place where they could hide themselves and their livestock during a battle. The mediaeval castle was a fighting machine and what living space it contained was for the sustenance of the chieftain, his family, and his soldiers. In fact, a feudal lord under threat of siege would as likely as not burnt the hovels and fields of the farms around him the better to prevent their use by his attacker.⁸⁴

The walled mediaeval city, on the other hand, was something quite different. To a greater or lesser degree it might have the outward attributes of a stronghold, though in practice the sophistication and state of maintenance of its fortifications would typically wax and wane in accordance with the degree of threat and availability of finance.⁸⁵ However, it was even more so a place of refuge—or, more precisely, a place for civil industry and the ebb and free flow of commerce that was adapted to take care of itself by necessity on occasion.

The key theme here is freedom—indeed, it was famously said of the mediaeval city that 'the air of the city makes free'.⁸⁶ This was no overstatement but it does need careful contextualisation. What the fortified mediaeval city provided its inhabitants was a degree of what the philosopher Isaiah Berlin called 'negative freedom', the freedom to act unobstructed by others—in this case specifically unobstructed, to an extent, by the feudal monarch.⁸⁷ In other words, the city wall surely had a tactically

defensive function, but its primary purpose was to serve as a physical expression of a specific urban identity and a demarcation of a social contract between the sovereign power and, for the most part, a wealthy merchant class that had obligations on both.⁸⁸

To be sure, as two analysts have put it, ‘the mediaeval town was also the protected town; there was no mediaeval concept of freedom that was not also a concept of association, patronage, and defence.’⁸⁹ We ought therefore to be careful in drawing analogies from those times to our own times. That caveat aside, however, there is a good deal of resonance here with respect to the contemporary multiplicity and fragmentation of sovereignty discussed above in the context of urban gating.

A very interesting example is to be found in contemporary China where the forting up of cities is proceeding apace, as elsewhere in the world, because of convergent concerns of homebuyers and local government with security. An added dimension, though, is the use of gated communities as a prophylactic device allowing a degree of political autonomy, or negative freedom, to exist for some sectors of society—largely a wealthy merchant class—in a way that does not imperil the larger national political *status quo*:

Gated spaces are rapidly becoming discrete units of a new government rationale in the cities and their erection is welcomed by residents, private actors, and the state. Walls enclosing relatively homogenous clusters of the population in well defined spaces are, essentially, forms of classification which, in turn, are necessary to the successful administration of a complex population.⁹⁰

A final broad type of fortification is sometimes referred to as strategic defence. There is enormous variation in the physical arrangement of this—it may consist of individual strongholds positioned to be mutually supportive and to deny an enemy unflanked avenues of attack across a wide front; alternately, it may take the form of a continuous wall punctuated by other defensive emplacements. The former is distinctly more defensively powerful and one sees it in situations such as the, ultimately doomed, Crusader Kingdom’s resistance over two centuries to the attempts of powerful Islamic armies to retake the Holy Land.⁹¹ The latter is visually extremely impressive—suggesting its major purpose—but militarily relatively weak, hence its most famous instances on the edges of great empires as a bulwark against barbarians lacking siege equipment and other means of major war.⁹² Nowadays, we would call such threats ‘asymmetric’.

The defining feature, however, of the strategic defence is its placement, which is always on the periphery of the political entity that has created it, demarcating its territory and serving as physical testament of the maximum extent to which it is determined to exert *direct* authority, which is not to say that it would not seek to exert influence over the lands beyond it. For instance, the roof tiles of some garrison houses on China’s northern frontier were inscribed with the words ‘All aliens submit!’⁹³ The signage in the customs halls of the major international crossing points

of the world today tend to use more emollient language but the message is the same. It is also an enormously expensive undertaking—both to build and to garrison—and as such always serves as a symbol of the wealth and power of the society that created it.

As noted above, powerful land-based strategic defences have fallen from fashion since the Second World War, although a handful remain in places such as the border between North and South Korea. In the form of air defence, and increasingly missile defence, however, they have remained vital to nation statehood for three quarters of a century even as they vanished from the public eye into the electronic ether. The name of Israel's rocket interceptor system 'Iron Dome' quite clearly indicates its conceptual genealogy—a fort in the sky built out of radar emissions and high-speed missiles.⁹⁴

The more recent, and controversial, use of continuous wall strategic defences has, strictly speaking, little to do with military defence. Governments of rich countries are reinforcing their borders with physical barriers and detection systems, as well as naval patrols, border guards, police, and soldiers primarily to prevent illegal migration from poorer places.⁹⁵ The forces driving this trend are widely apprehended, in Europe for example:

Everyone pays grudging homage to the American model of cultural diversity, but European governments of all persuasions are dour about its advantages and alert to its dangers: cities eroded by poverty and profit; the cantonisation of social space; urban and rural societies doubly fractured by ethnicity and class; most forms of negotiation dragged along the runnels of identity politics. And if governments incline to the gloomy view, so do many citizens.⁹⁶

The narrative of the threat of terrorism has also contributed to the securitisation of borders. Also, as noted above, by no means is this a specifically European issue. The same perception that physical barriers are the only way to protect one's own people and way of life from a range of threats is the driving force behind the construction of the wall between the United States and Mexico.⁹⁷

Criticism of such activity has centred very tightly around the question of whether or not it is ethical, largely concluding (often quite stridently) that it is not:

The existence of a barrier legitimises and exacerbates the dehumanisation of the other on the outside... It intensifies the practices of exclusion because the barrier, as a material manifestation of inside and outside, reifies the difference between a citizen and a foreigner and turns the gaze inward in an effort to homogenise the idea of the nation and homeland. By symbolically marking the edges of these imagined spaces, the barrier accelerates the effort to sanitise the internal space of the state and to eliminate any examples of the threatening other.⁹⁸

Surely it is pertinent, though, to ask also: do they work? It is not the first time that it has been tried and lessons can be drawn from previous instances.

There is considerable evidence, for example, that Imperial Rome went to great lengths to enforce regulations on the movement of people into its empire and more generally to police network flows in and around its frontier zones. Indeed, archaeologists suggest that the chief purpose of its extensive linear peripheral fortifications—notably Hadrian’s Wall in Britain and the *limes* in Upper Germany—was not for defence against major military attacks because the lines followed by these walls and the placement of its main outposts often defied military sense. The Romans were astute engineers and soldiers; if they placed a fortification in a place of tactical vulnerability, doubtless it was because they had very good other reasons for doing so.⁹⁹

It is clear from Tacitus and other Roman sources that the job of the army on the frontier was essentially border control and its purpose in a word: security.¹⁰⁰ Ultimately, of course, the frontiers failed to deliver in this respect because Rome itself failed to complete the conquest of the known world—the only way of achieving total security that the expansionist early emperors wished to imagine; but they certainly gave several centuries of good use allowing the peaceful economic exploitation of the adjacent countryside within the empire right up to the end.¹⁰¹

The larger point, though, is about how we conceive of walls and the frontiers that they serve. None of the walls forms discussed here is impermeable, even in those situations where their primary intent was militarily defensive. Impermeable, permanently unbreachable walls are the stuff of fantasy, like the 700 feet high and 300 miles long ice wall in the *Song of Ice and Fire* novels—and even there they still fail.¹⁰² Walls are better conceived as valves—a means of regulating flows by the manipulation of the physical terrain for the purposes of policy. Whether that requires flow through the valve to be set to fully on, or to fully stopped, or somewhere in between those absolutes depends on the aim of the policy; the valve is a means to an end—and generally a good one to have.

A MORAL AND NATURAL CASE FOR WALLS

People build walls because they are fearful. They build walls when they want to pacify and subdue others. They build walls to preserve material and political conditions inside them that are massively better than those that prevail outside them. It is hard to construct a case for walls that is morally good, even though they are absolutely practically good for those things. It is quite easy to adopt the self-aggrandising jeremiad tones of Colonel Nathan Jessup:

Son, we live in a world that has walls, and those walls have to be guarded by men with guns...You don’t want the truth because deep down in places you don’t talk about at parties, you want me on that wall, you need me on that wall.¹⁰³

In his moving account of his journey along many of the contemporary walls noted in this paper the Canadian travel writer Marcello Di Cinto concluded of them that they represented a sort of surrender:

The walls stood as evidence that their conflicts were unwinnable and permanent. When diplomacy and negotiation crumbles, when the motivation to find solutions wanes and dies, when governments resign themselves to failure, the walls go up... The walls admit our defeat. We throw up a wall right after we throw up our hands.¹⁰⁴

Nonetheless, there is a practical and moral case for walls that goes beyond the self-evidently perennial attraction of communities to them for varying self-serving reasons throughout history. The truth is that our world today is typified by the prevalence of conflicts, perhaps better described as ‘confrontations’, that are effectively irresolvable and which cycle through periods of dormancy and flare up.¹⁰⁵ Is it immoral to treat the symptoms of a chronic disease? If not, why then should the use of walls to mitigate the mutual violence suffered by otherwise warring communities be considered so? More generally as Michael Walzer put it:

Membership is important because of what the members of a political community owe to one another and to no one else, or to no one else in the same degree. And the first thing they owe is the communal provision of security and welfare.¹⁰⁶

If one accepts that political community is desirable and that a just social contract within it depends in part on the recognition of difference between members and strangers, then the exclusionary function of walls is not *ipso facto* immoral.

Natural history also suggests a positive case for walls in world affairs.¹⁰⁷ Circling back to the introduction of this paper, we can observe that people want to be connected with others. The reason that we have wired the world up in as dense a web as we have done (and are continuing to do) is because people find links with others to be empowering, enriching, and enjoyable.¹⁰⁸ There are, on the other hand, aspects of wild connectivity that people find disempowering, impoverishing, and frightening, which compels them to cover up and wall themselves off. Our global system currently reflects these contrary imperatives. It is a massively complex system that is struggling to achieve what the cyberneticist Norbert Weiner described as ‘homeostasis’ or self-regulation.¹⁰⁹

The academic literature, where it touches on the issue in the first place, tends to perceive walls as part of the problem but it should not—because they are actually a part of the solution. It helps to present the problem as one that afflicts all potentially emergent highly connected systems—brains, cities, software, and society more generally. Even Di Cinto, who as noted above paints a bleak picture of our walled world, apprehends something natural to what is happening:

Perhaps new walls are not anathema to our borderless world but the natural response to it. We are uncomfortable being so undefined. We need to put something, anything, under our control. So we counter economic and electronic entropy with simple geometries of bricks, barbed wire, and steel.¹¹⁰

The issue at hand is the surfeit of positive feedback mechanisms in the system—stimuli such as terrorism, for example, that are self-reinforcing cause one event to lead to another and after every iteration of the cycle subsequent stimuli are amplified. The result is an ever-widening gyre: feedback—chaos—from which people naturally recoil. The problem is one that affects all complex networks. In the brain, which relies on the constantly reverberating circuits of billions of interconnected neurons to produce consciousness, the inevitable ruckus of positive feedback that would otherwise drive us all into the equivalent of a permanent epileptic fit, is dealt with by a simple expedient: negative feedback, fatigue (or in more resonant military terms, friction)...

Every neuron in the brain suffers from a kind of regulated impotence: after firing for a stretch, the cell must go through a few milliseconds of inaction, the ‘absolute refractory period’, during which it is immune to outside stimulation. Along with many other ingenious inhibiting schemes that the brain relies on, fatigue is a way of shorting out the reverberating circuit, keeping the brain’s feeding frenzy in check.¹¹¹

That is the thing, the ‘inhibiting scheme’, the device that generates the ‘absolute refractory period’ that allows you to comprehend these words (and to disagree with them, if you wish), is a wall, a fortification, a semi-permeable membrane—a valve, a machine for *slowing*. The same goes for our larger human collectivity. Who does not want a global society that is governable, that can direct itself towards a better and more stable and creative future? That person should wish for a world without walls.

¹ Barry Wellman, ed., *Networks in the Global Village* (Boulder, CO: Westview Press, 1999) represents a foundational example of social network analysis. Jackie Smith, *Social Movements for Global Democracy* (Baltimore, MD: Johns Hopkins University Press, 2008), is an exceptional primer on social networks and transnational activism.

² See Manuel Castells, *The Information Age*, Vol. 1, *The Rise of the Network Society* (London: Blackwell, 1996), Vol. 2 *The Power of Identity* (London: Blackwell, 1997), and Vol. 3, *The End of Millennium* (London: Blackwell, 1998), as well as *Communication Power* (Oxford: Oxford University Press, 2009).

³ Mark Bevir, *A Theory of Governance* (Berkeley, CA: Global, Area, and International Archive, University of California Press, 2013), p. 57.

⁴ The RMA spawned a vast literature amongst which William Owens’ *Lifting the Fog of War* (London: Johns Hopkins University Press, 2000) stands out as the most important of the genre.

⁵ Rupert Smith’s *The Utility of Force: The Art of War in the Modern World* (London: Allen Lane, 2005) captured the problem at hand most penetratingly. Other important works that

covered similar ground, however, include Thomas X. Hammes, *The Sling and the Stone: On War in the 21st Century* (St Paul, MN: Zenith Press, 2004) and Frank Hoffman, *Conflict in the 21st Century: The Rise of Hybrid Wars* (Arlington, VA: Potomac Institute for Policy Studies, 2007).

⁶ John Mackinlay's *The Insurgent Archipelago* (London: Hurst, 2009) is a landmark in this literature, although the basic ideas have been greatly developed in either parallel or in extension in the work of, *inter alia*, Manuel Castells, *Networks of Outrage and Hope: Social Movements in the Internet Age* (Cambridge: Polity, 2012), Neville Bolt, *The Violent Image: Insurgent Propaganda and the New Revolutionaries* (London: Hurst, 2012), and Carston F. Roennfeldt, 'Productive War: A Reconceptualisation of War', *Journal of Strategic Studies*, Vol. 34, No. 1 (2011).

⁷ David Betz and Tim Stevens, *Cyberspace and the State: Toward a Strategy for Cyberpower* (London: International Institute for Strategic Studies, 2011).

⁸ See David Bewley-Taylor, 'US Concept Wars, Civil Liberties, and the Technologies of Fortification', *Crime, Law, and Social Change*, Vol. 43, No. 1 (2005), pp. 81-111.

⁹ John Ralson Saul, *The Collapse of Globalism and the Reinvention of the World* (London: Atlantic Books, 2005), p. 3.

¹⁰ On the transformation of Britain's streets, see Anna Minton, *Ground Control: Fear and Happiness in the Twenty-First Century City* (London: Penguin, 2009).

¹¹ David Kilcullen's *Out of the Mountains: The Coming Age of the Urban Guerrilla* (London: Hurst, 2013) represents a recent partial and welcome exception to the general neglectedness of the subject, joining a handful of others including Alice Hills' *Future War in Cities: Rethinking a Liberal Dilemma* (London: Frank Cass, 2004). See also, Michael Evans, 'Lethal Genes: The Urban Military Imperative and Western Strategy in the Twenty-First Century', *Journal of Strategic Studies*, Vol. 32, No. 4 (2009), pp. 515-552.

¹² Stephen Graham, *Cities Under Siege: The New Military Urbanism* (London: Verso, 2010).

¹³ Robert Hassan discusses the respective poles of opinion on the perils and possibilities of the 'shrinking planet' in *The Information Society* (Cambridge: Polity, 2008), esp. chaps. 4 & 6.

¹⁴ See Mike Davis, *Planet of Slums* (London: Verso, 2006); also, amongst other of his writings, David Harvey, *A Brief History of Neo-Liberalism* (Oxford: Oxford University Press, 2005).

¹⁵ Fritjof Capra, *The Hidden Connections: A Science for Sustainable Living* (London: Flamingo, 2003), p. 106.

¹⁶ Marshall McLuhan, *Understanding Media: The Extensions of Man* (Abingdon: Routledge, 2011 [1964]), p. 370.

¹⁷ Robert F. Kennedy, 'Day of Affirmation Address at Cape Town University', Cape Town, South Africa: 6 June 1968.

¹⁸ Hannah Arendt, 'Karl Jaspers: Citizen of the World' (1958) republished in *Men in Dark Times* (New York: Harcourt Brace and World, 1968), p. 83.

¹⁹ On which point, see John Robb, *Brave New War: The Next Stage of Terrorism and the End of Globalisation* (London: Wiley, 2007).

²⁰ Arjun Appadurai, 'Disjuncture and Difference in the Global Cultural Economy', *Theory, Culture and Society*, Vol. 7, No. 2 (1990), pp. 295-310.

²¹ 'The Origins of the Financial Crisis', *The Economist* (7 September 2013).

²² Demise Roland, 'Ebola crisis 'unlikely to be under control within a year', says pharma boss', *The Telegraph* (22 October 2014).

²³ From the Occupy Wall St webpage: <http://occupywallst.org/>

²⁴ Zygmunt Bauman, *Liquid Times: Living in an Age of Uncertainty* (Cambridge: Polity, 2006), p. 6.

²⁵ Reece Jones, *Border Walls: Security and the War on Terror in the United States, India, and Israel* (London: Zed Books, 2012), looks at three such walls. The website GlobalSecurity.org

lists fifty-three extant walls, lines, and frontier fortifications worldwide, www.globalsecurity.org/military/world/walls.htm (accessed 11 November 2014). In autumn 2014 as fighting raged between forces of the Ukrainian government and pro-Russian militias fighting for independence of parts of West Ukraine from Kiev, the Ukrainian government began construction of a new wall on its border with Russia planned to stretch over two thousand kilometres in length and featuring a four meter wide ditch, electronic surveillance, watchtowers and other fortified elements. See 'Wall Project on Russia-Ukraine Border', *Itar-Tass* (16 October 2014), en.itar-tass.com/world/754787 (accessed 11 November 2014).

²⁶ The City of London's 'ring of steel' is perhaps the largest, if not the most longstanding attempt (it dates back to the late 1980s and early 1990s and was inspired by earlier efforts to secure bomb-riddled Belfast in Northern Ireland) to 'design out' the prospect of terrorism in a major urban centre. See Jon Coaffee, 'Rings of Steel, Rings of Concrete, and Rings of Confidence: Designing Out Terrorism in Central London Pre and Post September 11th', *International Journal of Urban and Regional Research*, Vol. 28, No. 1 (March 2004), pp. 201-211.

²⁷ Samer Bagaeen and Ola Uduke (eds.), *Gated Communities: Social Sustainability in Contemporary and Historical Gated Developments* (London: Earthscan, 2010).

²⁸ In early modern Europe the subject was the standard fare of educated gentlemen and a massive literature in the form treatises and practical manuals was produced for their edification. Little of this is now studied seriously as other than a minor subset of mostly amateur military historians and enthusiasts familiar with its arcane vocabulary of *lunettes* and *demi-lunes*, *ravelins*, and *tenailles*. Still the most lucid and accessible guide is the seventeenth century Sebastien LePrestre de Vauban's (George A. Rothrock, trans.), *Manual of Siegecraft and Fortification* (Ann Arbor, MI: University of Michigan Press, 1968).

²⁹ Carl Von Clausewitz (Michael Howard and Peter Paret, trans.), *On War* (New York: Alfred A. Knopf, 1993), p. 472.

³⁰ Clausewitz, *On War*, p. 471.

³¹ See Vojtech Mastny (ed.), 'European Cities Targeted for Nuclear Destruction: Hungarian Documents on the Soviet Bloc War Plans, 1956-1971', *Parallel History Project on Cooperative Security* (29 November 2001).

³² The durability of this trend is up for debate. Major interstate wars are at a historical low but there is good potential of their reoccurrence with the rise of new powers, while the already high rate and severity of intrastate wars is likely to increase as well according to the National Intelligence Council's *Global Trends 2030: Alternative Worlds* (Washington, DC: Office of the Director of National Intelligence, 2012), p. 59.

³³ From the HESCO website 'success stories' section, www.hesco.com/customers/success-stories?page=1 (accessed 18 November 2014).

³⁴ Concrete Jersey barriers, bollards, chicanes, and other traffic control systems as well as motorway sound dampening walls are widely offered and easily and widely adapted to security use. The Arsenal Football club's Emirates Stadium in North London is a particularly good example. Architects ringed it with subtle obstacles, including the club's name in giant concrete letters able to withstand the impact of a seven-tonne lorry placed at a critical entry point. See 'How to Terror-Proof Shopping Centres and Other Buildings', *BBC News* (15 November 2007), news.bbc.co.uk/1/hi/magazine/7095884.stm (accessed 19 November 2014).

³⁵ Bing West, *The Strongest Tribe: War, Politics, and the Endgame in Iraq* (New York: Random House, 2008), p. 330. See also Karin Brulliard, 'Gated Communities for the War Ravaged', *Washington Post* (23 April 2007).

³⁶ Mark Rice-Oxley, 'Why are we Building New Walls to Divide Us?', *Guardian* (19 November 2013).

³⁷ Eyal Weizman, *Hollow Land: Israel's Architecture of Occupation* (London: Verso, 2007), p. 146.

³⁸ See Stephen Biddle, *Afghanistan and the Future of Warfare* (Carlisle, PA: US Army War College, Strategic Studies Institute, 2002); Stephen Biddle and Jeffrey Friedman, *The 2006 Lebanon Campaign and the future of Warfare: Implications for Army and Defence Policy* (Carlisle, PA: US Army War College, Strategic Studies Institute, 2008); Reuven Erlich, *Hezbollah's Use of Lebanese Civilians as Human Shields: The Extensive Military Infrastructure Positioned and Hidden in Populated Areas* (Tel Aviv: Intelligence and Terrorism Information Centre, 5 December 2006); and, Nicholas Blanford, 'A Rare Trip through Hizbullah's Secret Tunnel Network', *Christian Science Monitor* (11 May 2007); also, David E. Johnson, M. Wade Markel, and Brian Shannon, *The 2008 Battle of Sadr City: Reimagining Urban Combat* (Santa Monica, CA: Rand, 2013).

³⁹ A point well documented by Anthony James Joes, *Urban Guerrilla Warfare* (Lexington, KY: University of Kentucky Press, 2007).

⁴⁰ Ziauddin Sardar, 'Opening the Gates: An East-West Transmodern Discourse?', in Bagaeen and Uduku (eds.), *Gated Communities*, p. 9.

⁴¹ Ola Uduku, 'Lagos: Urban Gating as the Default Condition', in Bagaeen and Uduku, *Gated Communities*, p. 46.

⁴² Samer Bagaeen, 'Gated Urban Life Versus Kinship and Social Solidarity in the Middle East', in Bagaeen and Uduku (eds.), *Gated Communities*, p. 15.

⁴³ Mark Duffield, 'Challenging Environments: Danger, Resilience, and the Aid Industry', *Security Dialogue*, Vol. 43, No. 5 (2012), p. 487.

⁴⁴ Mike Davis, *City of Quartz: Excavating the Future in Los Angeles* (London: Verso, 1990), p. 229.

⁴⁵ Colin Gray, *Perspectives on Strategy* (Oxford: Oxford University Press, 2013), p. 117.

⁴⁶ Lewis Mumford, *The City in History: Its Origins, Its Transformations, and Its Prospects* (London: Harvest Books, 1961), p. 172.

⁴⁷ I take this understanding of strategy from Lawrence Freedman, *The Transformation of Strategic Affairs* (London: International Institute for Strategic Studies, 2006), pp. 8-9.

⁴⁸ For example, the index of Beatrice Heuser's exhaustive survey *The Evolution of Strategy: Thinking War from Antiquity to the Present* (Cambridge: Cambridge University Press, 2010) contains only names of important figures in strategy—over six hundred of them—none of them Haussmann.

⁴⁹ David Kilcullen, *Out of the Mountains: The Coming Age of the Urban Guerrilla* (Oxford: Oxford University Press, 2013), pp. 20-21.

⁵⁰ Kilcullen, *Out of the Mountains*, p. 20 concludes it was the former; Paul Hirst, *Space and Power: Politics, War, and Architecture* (Cambridge: Polity, 2005), p. 120 argues it was the latter.

⁵¹ Kilcullen, *Out of the Mountains*, p. 19.

⁵² Peter Andreas, *Blue Helmets and Black Markets: The Business of Survival in the Siege of Sarajevo* (London: Cornell University Press, 2008), p. 3.

⁵³ Andreas, *Blue Helmets, Black Markets*, p. 165.

⁵⁴ Martin Coward, *Urbicide: The Politics of Urban Destruction* (Abingdon, Oxon: Routledge, 2009), p. 15.

⁵⁵ Mumford, *The City in History*, p. 31.

⁵⁶ Stephen Graham, *Cities Under Siege: The New Military Urbanism* (London: Verso, 2010), p. 60.

⁵⁷ Graham, *Cities Under Siege*, pp. 19-35. See also Weizman, *Hollow Land*, p. 186.

⁵⁸ See, inter alia, David E. Sanger, *Confront and Conceal: Obama's Secret Wars and Surprising Use of American Power* (New York: Crown, 2012); Dexter Filkins, *The Forever War*:

Dispatches from the War on Terror (London: The Bodley Head, 2008); also, John Kaag and Sarah Kreps, *Drone Warfare* (Cambridge: Polity, 2014).

⁵⁹ I draw these characteristics of a community of practice from Etienne Wenger, *Communities of Practice* (Cambridge: Cambridge University Press, 1998).

⁶⁰ Cited in John Antal and Bradley Gericke (eds.), *City Fights: Selected Histories of Urban Combat from World War II to Vietnam* (New York: Ballantine, 2003), p. ix.

⁶¹ Sun Tzu, *The Art of War* in Thomas Cleary (trans.), *Classics of Strategy and Counsel* (Boston: Shambhala Publications, 2000), p. 74.

⁶² Hence the UK's description of the future operating environment as, 'congested, cluttered, contested, connected and constrained'. See, Developments, Concepts, and Doctrine Centre, *Strategic Trends Programme: Future Character of Conflict*, (London: UK Ministry of Defence, 2010), pp. 21-25.

⁶³ Graham, *Cities Under Siege*, p. 85.

⁶⁴ Quoted in Weizman, *Hollow Land*, p. 198.

⁶⁵ Weizman, *Hollow Land*, p. 198.

⁶⁶ A point remarked upon by the post-2006 Lebanon War report on the perceived Israeli failings. See *Winograd Commission: The Commission to Investigate the Events of the 2006 Lebanon Campaign* (Jerusalem: State of Israel, January 2008 [in Hebrew]).

⁶⁷ Weizman, pp. 211-212. Weizman refers to an 1848 essay ostensibly by Bugeaud 'The War of Streets and Houses' as the first written account of the technique of 'walking through walls'. The essay was plausibly written by Bugeaud—the tone is correct and the tactical injunctions it contains are perfectly sound—but it may actually be a literary invention. See Sophie Yanow, *War of Streets and Houses* (Minneapolis, MN: Uncivilised Books, 2014), pp. 67-69.

⁶⁸ General Sir Andrew Skeen, *Lessons in Imperial Rule: Instructions for the British Infantryman on the Indian Frontier* (London: Frontline Books, 2008), a reprint of *Passing it On: Short Talks on Tribal Fighting on the Northwest Frontier of India* (Aldershot: Gale and Polden, 1932).

⁶⁹ Peter Adey, 'Vertical Security in the Megacity: Legibility, Mobility, and Aerial Politics', *Theory, Culture, Society*, Vol. 27, No. 6 (2010), pp. 51-67.

⁷⁰ Mike Davis, *Planet of Slums* (London: Verso, 2006), p. 206.

⁷¹ Charles Krulak, 'The Three Block War: Fighting in Urban Areas', in *Vital Speeches of the Day*, Vol. 64, No. 5 (December 1997); also, Charles Krulak, 'The Strategic Corporal: Leadership in the Three Block War', *Marine Corps Gazette*, Vol. 83, No. 1 (January 1999), pp. 18-23; and, John Agoglia, 'Learning to Fight the Four-Block War: How Commanders Learn "Non-Military Jobs"', in David Rudd, Deborah Bayley, and Ewa Petruczynik (eds.), *Beyond the Three Block War* (Toronto: Canadian Institute of Strategic Studies, 2006).

⁷² A. Walter Dorn and Michael Varey, 'Fatally Flawed: The Rise and Demise of the "Three Block War" Concept in Canada', *International Journal* (Autumn 2008), pp. 967-978.

⁷³ Peter Kiss, *Winning Wars Amongst the People: Case Studies in Asymmetric Conflict* (Dulles, VA: Potomac Books, 2014), p. 173.

⁷⁴ A scenario imaginatively explored in the near-future science fiction novel by Adam Roberts, *New Model Army* (London: Gollancz, 2010).

⁷⁵ Johnson *et al*, *The 2008 Battle of Sadr City*, p. 113.

⁷⁶ See, inter alia, John Keegan, *A History of Warfare* (Toronto, ON: Key Porter, 1993), pp. 139-140; and Graham Connah 'Contained Communities in Tropical Africa' and George R. Milner, 'Palisaded Settlements in Prehistoric North America', both in James D. Tracy (ed.), *City Walls: The Urban Enceinte in Global Perspective* (Cambridge: Cambridge University Press, 2000).

⁷⁷ Connah, 'Contained Communities...', p. 43.

⁷⁸ See Heather Brooke, *The Revolution will be Digitised* (London: Windmill Books, 2012); also Micah L. Sifry, *Wikileaks and the Age of Transparency* (New Haven, CT: Yale University Press, 2011).

⁷⁹ Betz and Stevens, *Cyberspace and the State*, p. 72.

⁸⁰ See Chris Demchak, *Wars of Disruption and Resilience: Cybered Conflict, Power, and National Security* (London: Georgia University Press, 2011).

⁸¹ Philip Warner, *The Mediaeval Castle: Life in a Fortress in Peace and War* (New York: Barnes and Noble, 1993), p. 5.

⁸² Thomas Ricks, *Fiasco: The American Military Adventure in Iraq* (London: Penguin, 2006), pp. 368-369.

⁸³ Denis Judd and Keith Surridge, *The Boer War* (Houndmills, Basingstoke: Palgrave Macmillan, 2002), pp. 215-217.

⁸⁴ For instance, in the run-up to the Crusaders' Siege of Jerusalem in 1099 the Turkish commander of the city stripped the surrounding countryside of standing crops and livestock, poisoned all the wells, and ejected all Christian inhabitants into the dead zone between the invading army and his own walls. None of this was out of the norm at the time, nor would it be for another eight and a half centuries. Bruce Allen Watson, *Sieges: A Comparative Study* (Westport, CT: Praeger, 1993), p. 24.

⁸⁵ The best illustration of this is E. Viollet-Le-Duc's *Annals of a Fortress: Twenty Two Centuries of Siege Warfare* (London: Greenhill Books, 2000), a semi-fictional narrative of one French town's history of fortification and war.

⁸⁶ H. Pirenne, *Mediaeval Cities* (Princeton, NJ: Princeton University Press, 1925), p. 193-194.

⁸⁷ Isaiah Berlin, 'Two Concepts of Liberty' in Isaiah Berlin, *The Proper Study of Mankind: An Anthology of Essays* (London: Pimlico, 1998), pp. 194-203.

⁸⁸ See Kathryn L. Ryerson, 'Mediaeval Walled Space: Urban Development vs Defence' in Tracy (ed.), *City Walls*, pp. 88-116.

⁸⁹ Nezar Alsayyad and Ananya Roy, 'Mediaeval Modernity: On Citizenship and Urbanism in a Global Era', *Space and Polity*, Vol. 10, No. 1 (2006), p. 3.

⁹⁰ Luigi Tomba, 'Gating Urban Spaces in China: Inclusion, Exclusion, and Government', in Bagaeen and Uduku (eds.), *Gated Communities*, p. 31.

⁹¹ See Hogg, *The History of Fortification*, pp. 58-67.

⁹² Julia Lovell illustrates the importance of the mythic, as opposed to strictly military, power of continuous walls in *The Great Wall: China Against the World, 1000 BC-AD 2000* (London: Atlantic Books, 2006).

⁹³ Lovell, *The Great Wall*, p. 22.

⁹⁴ David Talbot, 'Why Israel's "Iron Dome" Missile-Defence System Actually Works', *MIT Technology Review* (26 November 2012).

⁹⁵ Matthew Carr, *Fortress Europe: Dispatches from a Gated Continent* (London: Hurst, 2012), p. 3.

⁹⁶ Jeremy Harding, *Border Vigils: Keeping Migrants out of the Rich World* (London: Verso, 2012), p. 3.

⁹⁷ Jones, *Border Walls*, pp. 37-45

⁹⁸ Jones, *Border Walls*, p. 176.

⁹⁹ David J. Breeze, *The Frontiers of Imperial Rome* (Barnsley, South Yorkshire: Pen and Sword Books, 2011), p. 195.

¹⁰⁰ Breeze, *The Frontiers of Imperial Rome*, p. 205.

¹⁰¹ Edward Luttwak, *The Grand Strategy of the Roman Empire From the First Century AD to the Third* (Baltimore, MD: Johns Hopkins University Press, 1976), pp. 170-173.

¹⁰² George R.R. Martin, *Game of Thrones: A Song of Ice and Fire, Book One* (London: Harper Voyager, 2011).

¹⁰³ From the Rob Reiner (dir.) film *A Few Good Men* (Columbia Pictures, 1992).

¹⁰⁴ Marcello Di Cinto, *Walls: Travels Along the Barricades* (Fredericton, NB: Goose Lane, 2012), p. 259.

¹⁰⁵ See Smith, *The Utility of Force*, pp. 181-182.

¹⁰⁶ Michael Walzer, *Spheres of Justice: A Defence of Plurality and Equality* (New York: Basic Books, 1983), p. 64.

¹⁰⁷ I am taking my cue here from the biologist Rafe Safarin's book *Learning from the Octopus: How Secrets from Nature can Help Us Fight Terrorist Attacks, Natural Disasters, and Disease* (New York: Basic Books, 2012).

¹⁰⁸ Clay Shirky, *Cognitive Surplus: Creativity and Generosity in a Connected Age* (London: Allen Lane, 2010) represents something of an exemplar of this view.

¹⁰⁹ Norbert Wiener, *Cybernetics: or Control and Communication in the Animal and Machine* (Cambridge, MA: MIT Press, 1948), p. 158.

¹¹⁰ Di Cinto, *Walls*, p. 13.

¹¹¹ Johnson, *Emergence*, p. 143.